

## REMARKS

Claims 1-22 are new.

Independent claims 1, 10, 15, 21, and 22 recite “receiving data associated with a request for content at a first intermediate server, the data transmitted from an end user to the first intermediate server.” This recitation is supported in the Summary, Figures 2-5, and in the associated description. For example, page 3, lines 27-28 recites “forwarding of the message from the source to a first one of the intermediate overlay nodes.” In another example, page 14, lines 29-30 considers “the case of a message that requests a return reply (such as an http request to get a file).”

Claims 1, 10, 15, 21, and 22 also recite “identifying a first cost of transmission along a default route from the first intermediate server to a content server, the default route determined using one or more existing routing mechanisms; identifying a second cost of transmission along an alternate route from the first intermediate server to the destination, the alternate route including a second intermediate server not in the default route, wherein the second intermediate server is part of an overlay network.” This recitation is supported in Summary, Figure 2-4, and in the associated description. For example, page 3, lines 18-22 recites “measuring the costs of transmitting the message from the source to the destination along one or more non-default, alternative paths passing through a special group of intermediate nodes” and page 6, lines 14-15 recites “alternate, improved forwarding paths through the overlay network nodes are discovered on demand.” In another instance, page 6, lines 23-29 recites “measuring the cost of data transmission along a given path (per steps 210, 220) is generally performed using conventional techniques, depending on the cost metric to be measured. For example, connection delay time can easily be measured by “pinging” the destination of interest from the source node of interest. At steps 230-235 these alternative paths are compared to the existing Internet route or previously chosen overlay routes.”

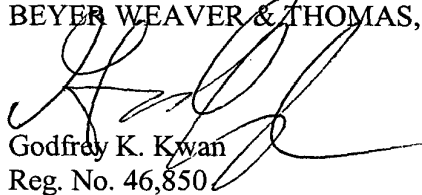
Claims 1, 10, 15, 21, and 22 further variably recite “determining an optimal route based at least in part on the first and second cost, wherein the first cost and the second cost are determined using network communication performance metrics.” This is supported in the Summary, Figure 2, and the associated description. In one example, page 3, lines 22-23 recites “an optimized path for sending the requested transmission is ultimately selected by comparing

the default cost against the alternative costs” and page 8, lines 16-18 recites “cost function F is preferably drawn from a set of network communication performance metrics such as delay, throughput, jitter or loss, in accordance with the practitioner's priorities and needs.”

Claims 1, 10, 21, and 22 also recite “transmitting data associated with the request for content along the optimal route.” The recitation is supported in Figure 2 and 5 and the associated description. In one example, page 3, lines 25-26 recites “steps and means for transmitting messages along an optimized non-default path passing through overlay nodes,” and page 12, lines 28-30 recites that “Figure 5 provides a more detailed view of the method performed to transmit message data through a non-default overlay path (step 250 of Figure 2).”

Applicants believe that all pending claims are allowable and respectfully request a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

Respectfully submitted,  
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